DESCRIPTIONS OF NEW GENERA, SPECIES, AND SUBSPECIES OF BIRDS FROM COSTA RICA.

BY

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Through the kindness of the authorities of the Smithsonian Institution I have been permitted to compare the specimens contained in a small collection of birds brought with me from Costa Rica with the more extensive series belonging to the U. S. National Museum, every facility for the work being given me, together with assistance by the curator of the Department of Birds, as well as by Dr. Leonard Stejneger, especially in the matters of nomenclature and synonymy.

Notes on additional species are deferred until I can return to Costa Rica and have access to the large collection belonging to the Museo Nacional at San José.

In the following descriptions I have employed Mr. Ridgway's nomenclature in the naming of colors.

Lophotriccus squamicristatus minor, subsp. nov.

Mr. Ridgway having directed my attention to the decided difference in color between the Costa Rican birds and true squamicristatus, from Colombia, I have made a careful examination of the birds from the two localities and deem the differences such as to warrant the separation of the Costa Rica bird as a good geographical race, which I have named minor from its smaller size. From the true squamicristatus it is readily distinguished by the slightly brighter olive-green above, by the decidedly more yellowish or yellowish-green color below and its extension farther onto the breast, the under wing coverts being a little deeper yellowish, and lastly, in smaller size, the wing measuring 1.90-1.96, instead of 2.05-2.16, and the tail 1.68-1.72, instead of 1.82-2. (Type No. 35305 &, U. S. National Museum, Grecia, Costa Rica, December 1, 1864; F. Carmiol.)

Lophotriccus zeledoni, sp. nov.

Another bird from Costa Rica in the U. S. National Museum collection deserves attention, differing as it does from both squamicristatus and squamicristatus minor in being bright olive-green above, with a brownish shading on the hind neck. On the head the crest feathers are not nearly so well developed, the color at their base being not nearly

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so deep a black, while the rufous tips and edges are broader; the wings and tail are dusky, the latter edged with the color of the back and the former with olive-yellow, brightest and lightest on the inner secondaries; lesser wing coverts like the back, middle coverts lighter like the edging to the remiges, greater coverts with similar edges but having an orange shade. Below, chin and throat grayish white; breast, sides, and flanks greenish-yellow; abdomen and under wing coverts yellow (nearly the primrose of Ridgway's "Nomenclature".) Striations on the under parts are obsolete. The size is considerably smaller; wing, 1.70; tail, 1.50.

To this apparently new bird I have given the name *Lophotricous* zeledoni, taking pleasure in this opportunity to show some appreciation to Sr. Don José C. Zeledon for many favors, personal and otherwise.

The type of the new form is No. 47492, Collection U. S. National Museum, Dota, Costa Rica, October 4, 1867; F. Carmiol.

Pachyrhamphus ornatus, sp. nov.

Adult female (type No. 42951, collection U. S. National Museum, Barranea, Costa Rica, February 26, 1866; J. Carmiol); above olivegreen, wings and tail dusky-blackish, rectrices broadly tipped with cinnamomeous, primaries and secondaries edged with the same color, the inner secondaries broadly so; wing coverts tipped with tawny-cinnamon, greater and middle series broadly so. Crown and neck rufous-chestnut; supraloral stripe extending to just above the eye and including the nasal plumes on the forehead, white; lores blackish. A supra-auricular stripe extending from above the eye and crossing the occiput, black. Below, chin whitish, throat and breast greenish oliveyellow, abdomen and crissum canary-yellow; axillaries under wing coverts and inner edges of quills pale yellowish. Maxilla dusky blackish; mandible dusky plumbeous; feet and legs dusky.

Length of wing, 2.86; tail, 2.53; exposed culmen, 0.54; nostril to tip of bill, 0.42; gonys, 0.34; tarsus, 0.74.

HABITAT: Costa Rica.

Deconychura, gen. nov.

Like Sittasomus and Glyphorhynchus in the great extension of the stiffened stems of the rectrices beyond the webs of the feathers, but having ten rectrices instead of twelve. The bill is very like that of Sittasomus, slightly compressed for the terminal half and slightly depressed and widened for the basal half; gonys just appreciably ascending; bill a little longer in proportion, being as long as the head. The pattern of coloration is much as in Glyphorhynchus, being uniform above, the throat lighter colored and the breast spotted, but the pattern on the wing is very different from either the latter or Sittasomus, both of which have the secondaries and inner primaries marked with a conspicuous light patch on the inner webs, followed by a darker

area, the tips like the outer webs. In *Deconychura* the inner webs of the remiges are paler, but there is no lighter patch. The generic name here chosen refers to the peculiarities of the tail, with ten rectrices having the stiffened stems extended beyond the webs and bent down, being derived from $\delta \varepsilon n\alpha$ ten, $oyv\xi$ claw, and $ov\rho\alpha$ tail.

Deconychura typica, sp. nov.

Adult female (type No. 119943,* collection U.S. National Museum, Pozo Azul, Costa Rica, September 7, 1889; J. C. Zeledon); above light bister with umber-brown shading; feathers of the crown with blackish edgings and narrow faint buffy shaft streaks, these shaft streaks also seen on the hind neck. Wings, tail, and upper tail coverts between a chocolate and chestnut brown; wing coverts like the back; remiges shaded on the edges with the color of the back. Lores, superciliary stripe and sides of head soiled buffy or pale clay color, with dusky blackish or brownish shading. Chin and throat pale clay color; remaining lower parts light olive-brown with umber shading; feathers of the breast with blackish edges and central guttate spots of pale clay color, the spots growing fainter posteriorly until on the crissum they are only represented by faint shaft streaks. Under wing coverts ochraceous, inner edges of quills vinaceous cinnamon with an ochraceous shade. "Feet, legs, and lower mandible plumbeous; upper mandible black; iris dark brown" (Zeledon, MS.).

Wing rather long, third and fourth quills longest, first equal to eighth, second longer than fifth.

Length, 7.00; wing, 3.56; tail, 3.96; culmen, 0.92; nostril to tip of bill, 0.58; gonys, 0.52; tarsi, 0.80.

HABITAT: Costa Riea and Panama.

There is another specimen in the U.S. National Museum from Panama (Aspinwall) in immature plumage and with the bill broken off at the nostrils.

Premnoplex, gen. nov. (type, Margarornis brunnescens Lawr.).

I have before me four of the six recognized species of the genus Margarornis; namely, squamigera, stellata, rubiginosa, and brunnescens. The latter presents peculiarities in the pattern of coloration and structure that have led me to place it in a new genus, Premnoplex,† which I would characterize as similar to Margarornis, but wing short and rounded, and much more concave, while the second primary is shorter than the sixth, not longer; quills only faintly edged with lighter on the inner webs and no patch at the base of the feathers, extending to the shaft on the inner webs of a pale fulvous color. This light-colored area in squamigera, stellata, and rubiginosa, commences on the third primary and extends across the secondaries, increasing in length along the web on each suc-

^{*} No. 3320, collection Museo Nacional de Costa Rica.

[†] $\Pi \rho \epsilon \mu \nu \rho \nu = \text{trunk of tree and } \pi \eta \eta \delta \delta \omega = \text{strike}.$

ceeding feather. From descriptions I find the light patch at the base of the quills is present in *perlata* and *guttata*. In the new genus the nostrils open in a narrow slit at the posterior part of the nasal fossæ, while in the species of *Margarornis* before me the nasal opening is at the forward end of the nasal fossæ.

Vireo superciliaris, sp. nov. (Ridgway MS).

(Type No. 91825, U. S. National Museum, Birris, Costa Rica, 1882, J. Cooper:) Similar to V. carmioli, but darker olive-green above; below, paler, more inclined to sulphur-yellow with less olive shading on the breast and sides, while the under tail coverts are almost primiose-yellow; the lores are black, the cheeks and ear coverts olive-brownish, the latter fading gradually into the olive-greenish of the back. The white spot below the eye, including the white of the lower eyelid (central part only, not the entire eyelid), seems to be better defined. In addition to the differences noted above it is considerably larger; measuring: wing, 2.68; tail, 2.30; exposed culmen, 0.43; nostril to tip of bill, 0.30; while true carmioli measures, wing, 2.47–2.50; tail, 2.14–2.20; exposed culmen, 0.38–0.41; nostril to tip of bill, 0.25–0.28.

The present bird comes from the southwest coast region, while the two examples of *V. carmioli* examined came from the high interior of the country. Nothing is known of the habits of either of the birds. That the bird in hand is separable from typical *carmioli* can not be doubted, yet the relationship must be very close while a good series of specimens might show them to be inseparable as species. In the mean time it seems to me *Vireo carmioli superciliaris* would better indicate the relationship of the two birds.

Basileuterus delattrii.

I have eighteen Costa Rica specimens and five others from Guatemala, Veragua, Panama, and Bogota, that compared with Mr. Sharp's description of the type of mesochrysus (Cat. B. Brit. Mus. x, pp. 396-397) seem in a slight way to differ from that type. Mr. Sharpe writes: "A line of black across the forehead extending to the eye; upper and under edge of the eyelid white; lores and anterior and posterior edge of the eyelid, extending a little behind the eye, black; ear coverts, chestnut; behind the ear-coverts a white spot mixed with chestnut." In each of the eighteen Costa Rican examples and the ones from Bogota and Veragua this black line "across the forehead" is present, sometimes, however, only faintly (separated from the black lores by the white superciliary stripe that extends from the nostrils to the nape), averaging one-tenth of an inch wide, in no instance "extending to the eye." In the Guatemalan example it is entirely wanting, while in the two from Panama there are only a few dusky feathers at the extreme forehead. Costa Rica specimens, the ones from Guatemala, Bogota, and Veragua, and the two from Panama, all have the "under edge of the eyelid

white," this sometimes extending below the eye in an ashy whitish line to the forepart of the cheek; in some it is almost obsolete; in none of the specimens before me is there white on the "upper" eyelid. The black of the lores extends around, above, and behind the eye. None of the Costa Rican nor the Guatemalan examples show more than a trace of the "white spot mixed with chestnut behind the ear-coverts."

Costa Rica specimens have a dark rich chestnut crown and ear-coverts, the feathers of the crown usually tipped, especially posteriorly, with grayish olive; from the nape this latter color passes gradually into the rather dark olive-green of the back. The white spot back of the ear-coverts is in most cases only faintly indicated.

The specimens from Veragua, Bogota, and Panama have the head and ear-coverts rufous-chestnut; the grayish olive of the nape passes rather abruptly into the olive-green (brighter than in Costa Rica examples) of the back, and there is a white spot back of the ear-coverts, this white spot consisting of the feathers on the posterior edge of the auricular orifice, which are blackish at the base, but with white tips; the chin, forecheek, and infraocular line are more whitish than in Costa Rica specimens.

The Guatemala bird is distinguished from all the other examples by the more extended rufous-chestnut crown (in color like Veragua and Panama birds), including the occiput, and the entire lack of a grayisholive collar on the hind neck. The infraocular whitish stripe extends below the ear-coverts.

Viewing the material before me, and noting the comparisons I have just made, it is evident that either the Guatemala or Costa Rica bird should be separated under a new name. It might be supposed that there would be little question but that the Costa Rican was the one to be separated, but after a careful examination of the literature on the subject I am convinced that the Costa Rica bird is Basileuterus delattrii Bp., not mesochrysus Scl., and that it is the Guatemalan bird that ought to be named.

Bonaparte in his original description of delattrii distinctly says (Notes Orn., p. 62) "espece nouvelle de Nicaragua." Why Messrs. Salvin and Godman doubt Delattre's specimen having come from Nicaragua (Biol. C. A., Aves, I, p. 176) I do not know. Certain it is, Bonaparte's description applies much better to the Costa Rica bird than to the one from Guatemala, in which latter bird the chestnut of the head is not confined to the pileum, but embraces "pilco cum nucha" as in rufifrons; besides, there is indication of a median stripe in the crown, which is not to be found in Costa Rica examples.

^{*&}quot;Traete viridis subtus omnino flavus, genisque castaneis; superciliis albis."

[&]quot;Dans le rufifrons la couleur est moins brillante "cinerco virens" et le roux de la tete est plus etendu "pileo cum nucha costaneis." De plus au voit sur le tete "litura longitudinali verticis albida."

Basileuterus salvini, sp. nov.

I shall call the Guatemala bird Basilenterus salvini, and select as type No. 30700, U. S. National Museum, from Coban, Vera Paz, November 15, 1859 (received from O. Salvin). This is the bird described by Professor Baird as B. delattrii in his "Review of American Birds," p. 249, and I can not do better than reproduce his description: "Similar to rufifrons in color of head, the olive-green of the back brighter, this color invading and replacing the ashy of the nape and sides of the neck; the infraocular white band, less distinct behind, but apparently extending behind the eyes. Whole under parts greenish yellow, a little paler on middle of belly; flanks olive-green; the sides behind and crissum tinged with fulvous. Wings much rounded, about equal to the lateral tail-feathers; first quill shorter or not longer than the secondaries, as is the case in rufifrons."

With the above arrangement the geographical distribution of the species would be about as follows: Rufifrons is confined to Mexico, salvini to Guatemala, delattrii to Nicaragua and Costa Rica, while mesochrysus occupies the territory south into Colombia.

The two latter are closely related and it seems questionable if the two forms do not intergrade. The chief difference appears to be in a darker head and a darker olive-green of the upper parts in general of the Costa Rica bird, the white spot behind the ear-coverts is, I believe, an untrustworthy character, and the grayish nuchal band is hardly more so. Accordingly, I would reduce mesochrysus to subspecific rank, making it Basileuterus delattrii mesochrysus (Sclater).

Grallaria lizanoi, sp. nov.

Similar to *G. perspicillata*, but ashy above, with olive shading on the back, the back markings confined to very narrow (almost obsolete) fulvous shaft-streaks. Below, the black stripes on breast and sides are much broader. The black rictal stripe is clearer and better defined.

Adult hale (type No. 119951,* U. S. National Museum, Trojas, Costa Rica, January 1886, Anastasio Alfaro): Above, ashy or slate-gray, the back shaded with olive; inter-scapulars with faint fulvons shaft-streaks; wings and tail sepia-brown; primaries broadly edged (including almost the entire web) with ochraceous; median and lesser wing-coverts and scapulars olive brownsh tipped with buffy; greater coverts vandyke-brown tipped with burnt-sienna; † primary coverts clove-brown. Below white, the breast and sides more or less buffy; broad black stripes on the breast, extending to the flanks but growing less distinct posteriorly. Flanks and sides have an olivaceous shading. Under surface of the wing ochraceous. "Bill black; base of lower mandible white; legs and feet very light plambeous." (Zeledon MS.)

^{*}No. 628, Coll. Museo Nacional de Costa Rica.

[†] This is probably a character of the young or seasonal, as a May example has the greater coverts like the median and lesser ones.

Grallaria lizanoi is an inhabitant of the Pacific coast side of the Cordillera, while dives and intermedia seem confined to the Atlantic side, the former ranging north into Nicaragua, while the latter is, I believe, a bird confined more to the southeastern "tierra caliente" of Costa Rica, possibly extending to Panama.

I take pleasure in naming this beautiful species of ant thrush after the Hon. Don Joaquin Lizano, minister of state of the Republic of Costa Rica, to whom so much is due for the material advancement and intelligent progress of various institutions of the country, including especially the Museo Nacional.

Pachyrhamphus cinereiventris and allied forms.

Young males are similar to the females; in some specimens, just assuming the adult phase, a part of the rectrices have white tips and part have cinnamomeous tips; the same peculiarity is seen in the primaries and secondaries.

Adult male birds from Costa Rica differ from "Bahia" birds, labeled polychroptera, not only in the smaller size, but in having the under wing-coverts and axillaries plain slate-gray, like the breast. The "Bahia" birds have the axillaries and under wing-coverts more or less mottled with white, and the bend of the wing whiter.

There are two other birds, male and female, in the U. S. National Museum collection, from Greytown, Nicaragua, that while closely allied to both *cinereiventris* and *polychroptera*, have peculiarities sufficient, in my judgment, to separate them from either, as well as they (the two latter) are separated one from another. In fact, I believe sufficient material would show the three to be races of but a single species.

The male, like that of *cinereiventris* and *polychroptera* has the back black; head shining steel-bluish black; rump grayish; under parts slate-gray. But the bill is decidedly larger * than either of its allies, the wing and tail are equal to those of *cinereiventris* and smaller than in *polychroptera*. The female has the back and head more olive-greenish and the lower parts paler than females of *cinereiventris*, which latter species has also the back more or less tinged with brownish.

For this Nicaragua bird, in case future material may prove more conclusively its distinctness, I would propose the name *Pachyrhamphus similis*.

Arremon aurantiirostris.

Examining a series of these birds from the Atlantic and Pacific sides of the Cordillera, the birds from the Pacific side represented by specimens from Panama north through Veragua into Costa Rica, those from

	Exposed culmen.	Nostril to tip of bill.	Jaws.	Width of bill at base.
* No. 40448, \$\psi\$, June 4, 1865. H. E. Holland		0.44	0, 40 0, 40	0, 32 0, 32

the Atlantic side by examples from Colon (Aspinwall), Costa Rica, Nicaragua, Honduras, and Guatemala, there are seen certain differences that appear to be constant and which do not seem to be due to age, season, or sex.

A male (true aurantiirostris, I believe) from Pozo Azul, Costa Rica (Pacific side), (No. 1178, Museo Nacional de Costa Rica, January, 1887, J. C. Zeledon) may be described as follows: Above, olive-green; head, black, with a median vertical cinereous stripe; superciliary stripe, ashy white, whiter anteriorly and more ashy posteriorly; wings and tail, dusky brownish edged with olive, that on the tail much the darker; bend of wing, lemon-yellow. Below, sides of face and chin, black; throat, white; pectoral band, black; sides and flanks, slate-gray, tinged with olive on the flanks; center of belly, white; under tail coverts, brownish-gray. October and December birds from the same locality show little variation; but a bird taken in May, 1884, a female (No. 101838, U. S. National Museum, Pozo Azul, Costa Rica, J. C. Zeledon), has the stripe on the head darker grayish. The olive-green is perhaps a shade brighter, while in the center of the back are a few brownish feathers (the same color—nearly a chestnut—as on the bird described by Cassin as rufodorsalis, No. 39041, U.S. National Museum). The black pectoral band is not so well defined, the sides and flanks are washed more with grayish olive, the abdomen is buffy, the under tail-coverts brownish (sepia). Another example from Panama has the under tail-coverts a wood-brown.

A male from Choctum, Vera Paz (Guatemala) (No. 20421, U. S. National Museum, Vera Paz, January, 1860, O. Salvin), may be described as follows: Above, dark olive-green, a brownish shading on the upper tail-coverts; head, black, median vertical stripe, gray; superciliary stripe, white; wings and tail, dusky brownish or blackish, edged with brownish olive-green. On the tail the edging is only visible at the base, where it is very dark; bend of wing, light orange-yellow; below, sides of face and chin, black; throat, white; broad black pectoral band; center of breast, white, shading into buffy white on the abdomen; sides and flanks olivebrown, with faint shadings of olive-green; under tail-coverts clovebrown. Two specimens from Talamanca, Costa Rica, male and female, taken in April, have the sides and flanks more decidedly washed with olive-green, the under tail-coverts a trifle lighter (sepia-brown), while the bend of the wing is a bright orange yellow. Another Costa Rica specimen (No. 1175, Museo Nacional de Costa Rica) is probably melanistic. Above it is dark brownish olive green; wings, tail, and tail-coverts dark brownish (clove-brown), tail and coverts darkest, with scarcely a shade of olive edging except on the wing-coverts; bend of the wing is rather bright orange-yellow; below the center of the breast is white, and only a shade of buffy on the abdomen; sides and flanks, brownish olive; under tail-coverts, sepia-brown. An example from Los Sabalos, Nicaragua, a female, taken in April, has the back a little brighter olive,

the bend of the wing is not so decidedly orange, and below the sides and flanks are grayish brown with a faint shade of olive. Another Nicaraguan bird has the superciliaries almost as grayish as Pacific Coast birds and the back almost as bright. A specimen from Aspinwall has the superciliaries grayish posteriorly; the back as bright as Panama examples, but the sides and flanks are more brownish gray.

Thus while it will be seen that the Atlantic and Pacific forms can hardly be separated by hard and fast lines, yet the Atlantic form seems always separable, having white superciliaries, a darker back, a darker yellow bend to the wing (orange, not lemon), the sides, flanks, and under tail-coverts more brownish and less grayish. While some of these characters may fail, all will scarcely fail in the same bird; and the darkest or typical birds from the Atlantic side differ so decidedly from typical examples of the Pacific form that I am loath to class them as one bird. Accordingly in case a larger series of specimens may prove the differences constant as they seem, I would suggest the name Arremon aurantiirostris saturatus for the dark-colored bird found on the Atlantic side.

Myrmeciza intermedia, sp. nov.

An examination of the allied forms of *Myrmeciza*, including my recently described *occidentalis* (Auk., VII, April, 1891), has led me to conclude that Costa Rica has yet another form allied to *immaculata*, the habitat of which extends from the southeastern coast region of Costa Rica (Talamanca) to Panama. For this apparently new form I have chosen the name *intermedia*.

Adult male (Type, No. 64715, U. S. National Museum, Sipurio, Talamanea, Costa Rica, April S, 1873, J. C. Zeledon). Similar to immaculata, but having the under primary-coverts concolor with the quills, and the first primary only faintly, if at all, edged with white. Just a trifle smaller.

In the original description of *immaculata* (P. Z. S., 1864, p. 357) no mention is made of the color of the under wing coverts, nor of the white edging to the first primary, only saying "campterii margine albo." However, as examples with the first primary distinctly edged with white (as well as the alula) and the under primary-coverts white, tipped with ashy, do not seem to extend north of the Talamanca coast of Costa Rica, and as the type came from Panama, I take it as probable that it is this form (with white under primary-coverts) that is referred to.

M. intermedia extends from Panama along the Atlantic lowlands in Costa Rica to Nicaragua. It was, of course, with this form that I made my comparisons in describing occidentalis, the males of which differ but slightly from those of intermedia, while the females are quite distinct. Unfortunately we have no authentic females of immaculata.

M. exsul seems to differ from the three more northern forms in having the inner edges of the remiges ashy whitish, and in being much lighter

colored above and below Like *immaculata*, the first primary is distinctly edged with white, but the apical white spots on the wingcoverts are much larger.

M. occidentalis is confined to the west coast region of Costa Rica (and possibly Veragua), while M. intermedia is on the east side from Nicaragua to Panama, where it intermingles with immaculata, which extends as far north as Talamanca.